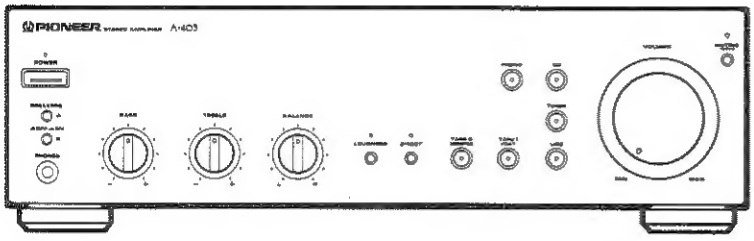
PIONEER
*The Art of Entertainment*

***Operating Instructions***
***Manual de instrucciones***
*操作説明書*

# A-403
# A-303

## SPARE PARTS MASTER

**STEREO AMPLIFIER**
**AMPLIFICADOR ESTEREOFONICO**
立體聲放大器



The illustration shows model A-403.
La ilustración muestra el modelo A-403.
本圖顯示的是A-403型號

**English**

**Español**

**中國語**

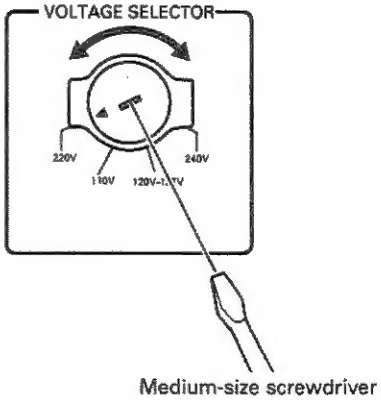
**WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

## LINE VOLTAGE SELECTOR SWITCH

**Only multi-voltage models are provided with this switch. U.S., Canadian, European, U.K., and Australian models are not provided with this switch.**
**Main voltages in Saudi Arabia are 127 V and 220 V only. Never use this model with 110 V setting in Saudi Arabia.**
The line voltage selector switch is on the rear panel. Before your model is shipped from the factory, this switch is set to the power requirements of the destination. Check that it is set properly before plugging the power cord into the AC wall socket. If the voltage is not properly set or if you move to an area where the voltage requirements differ, adjust the selector switch as follows.

1. Use a medium-size screwdriver.
2. Insert the screwdriver into the groove on the voltage selector, and adjust so that the tip of the arrow points to the voltage value of your area.




Medium-size screwdriver

## IMPORTANT

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

**CAUTION:**
**TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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# FEATURES

- Drive capacity 80 W + 80 W/4 Ω matching to high power and low impedance type speaker system.
  [model A-303 ..... 50 W + 50 W/4 Ω]
- Wide Range Linear Circuit
  This new current feedback circuit assures improved operating stability for flat output impedance and stable driving of speakers across the full range of frequencies.
- "DIRECT" button
  For bypassing all secondary circuits except for volume; highest purity results.
- 6 inputs: PHONO, CD, TUNER, TAPE 2 MONITOR, TAPE 1/DAT, LINE.
- Large insulators
- Connections for two pairs of speaker systems.

# INSTALLATION

## LOCATION

**Install the unit in a well-ventilated location where it will not be exposed to high temperatures or humidity.**

Do not install the unit in a location which is exposed to direct rays of the sun, or near hot appliances or radiators. Excessive heat can adversely affect the cabinet and internal components. Installation of the unit in a damp or dusty environment may result in a malfunction or accident. (Also avoid installation near cookers etc., where the unit may be exposed to oily smoke, steam or heat.)

## POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

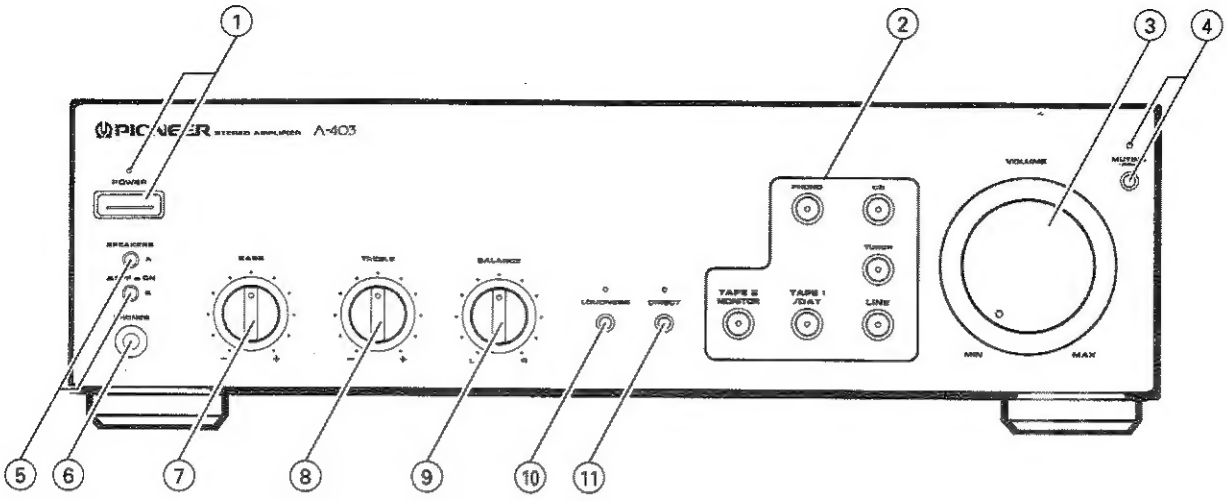
## MAINTENANCE OF EXTERNAL SURFACES

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are very dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
- Never use thinners, benzine, insecticide sprays or other chemicals on or near this unit, since these will corrode the surfaces.

# PANEL FACILITIES

## [FRONT PANEL]

The illustration shows model A-403.
Model A-303 is not equipped with ⑤.




### ① POWER switch/indicator

Press to turn power to the unit on and off.
When the power is on, the indicator lights.

### ② Input selector buttons

Use to select the playback source.

**PHONO** : For record playback with a turntable.
**CD** : For compact disc playback with a CD player.
**TUNER** : For AM or FM broadcast reception with a tuner.
**TAPE 1/DAT** : For playback with a cassette deck or digital audio cassette deck connected to TAPE 1/DAT terminals.
**TAPE 2 MONITOR** : For playback with a cassette deck or adaptor connected to TAPE 2/MONITOR (ADPT) terminals.
**LINE** : For playback with a component connected to LINE terminals.

### ③ VOLUME control

Use to adjust the volume level.

### ④ MUTING button/indicator (A-403 only)

Use to temporarily cut sound volume.

**On** : The indicator lights.
The sound volume will be reduced, at −20 dB.
**Off** : The indicator goes off.
The sound will return to its previous volume.

### ⑤ SPEAKERS selector buttons

Use these buttons to listen to the speaker systems connected to SPEAKERS terminals.

**OFF (■)** : Released positon: No sound is heard from the speaker systems. Set to this position when listening with headphones.
**A (▬)** : Depressed position: For reproduction of sound with the speaker system connected to the SPEAKER A terminals.
**B (▬)** : Depressed position: For reproduction of sound with the speaker system connected to the SPEAKER B terminals.

### ⑥ PHONES jack

When using headphones, insert the plug into this jack. (When you want to listen with headphones only, refer to ⑤.)

### ⑦ BASS tone control

Use to adjust the low-frequency tone at a low volume level. The center position is the flat (normal) position. When turned to the right, low-frequency tones are emphasized; when turned to the left, low-frequency tones are de-emphasized.

***NOTE:***
*This control does not operate when DIRECT button is in the on position.*

### ⑧ TREBLE tone control

Use to adjust the high-frequency tone at a low volume level. The center position is the flat (normal) position. When turned to the right, high-frequency tones are emphasized; when turned to the left, high-frequency tones are de-emphasized.

***NOTE:***
*This control does not operate when DIRECT button is in the on position.*

### ⑨ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the right side is louder, turn toward the L (left) position and if the left side is louder, turn toward the R (right) position.

***NOTE:***
*This control does not operate when DIRECT button is in the on position.*

### ⑩ LOUDNESS button/indicator

Use when listening at low volume levels.

**On:** The indicator lights: Boosts low and high frequencies to give added punch to playback at low volume.

**Off:** The indicator goes off: Should normally be left in this position.

***NOTE:***
*This button does not operate when the DIRECT button is in the on position.*

### ⑪ DIRECT button/indicator

Use this button when you do not wish to pass the output from input terminal equipment through the various frequency adjusting circuits (BASS, TREBLE, BALANCE, LOUDNESS).
This button also operates with respect to the component connected to the TAPE 2/MONITOR (ADPT) terminals.

**On:** The indicator lights: The signals input through the input terminals are reproduced without passing through the various frequency adjusting circuits. This results in flat, pure sound which is a more faithful reproduction of the input source.

**Off:** The indicator goes off: The signal passes through the various frequency adjusting circuits.

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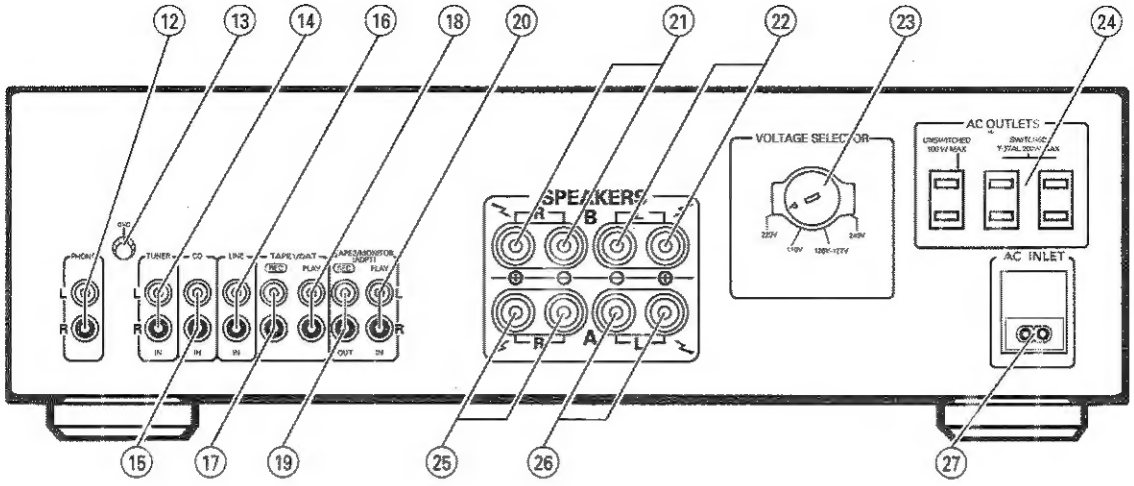
## [REAR PANEL]




**⑫ PHONO terminals**

**⑬ Turntable ground terminal (GND)**

**⑭ TUNER terminals**

**⑮ CD terminals**

**⑯ LINE terminals**

**⑰ TAPE 1/DAT REC terminals**

**⑱ TAPE 1/DAT PLAY terminals**

**⑲ TAPE 2/MONITOR (ADPT) REC terminals**

**⑳ TAPE 2/MONITOR (ADPT) PLAY terminals**

**㉑ SPEAKERS B terminals (Right channel)**

**㉒ SPEAKERS B terminals (Left channel)**

**㉓ VOLTAGE SELECTOR**

**㉔ AC OUTLETS (See page 7)**

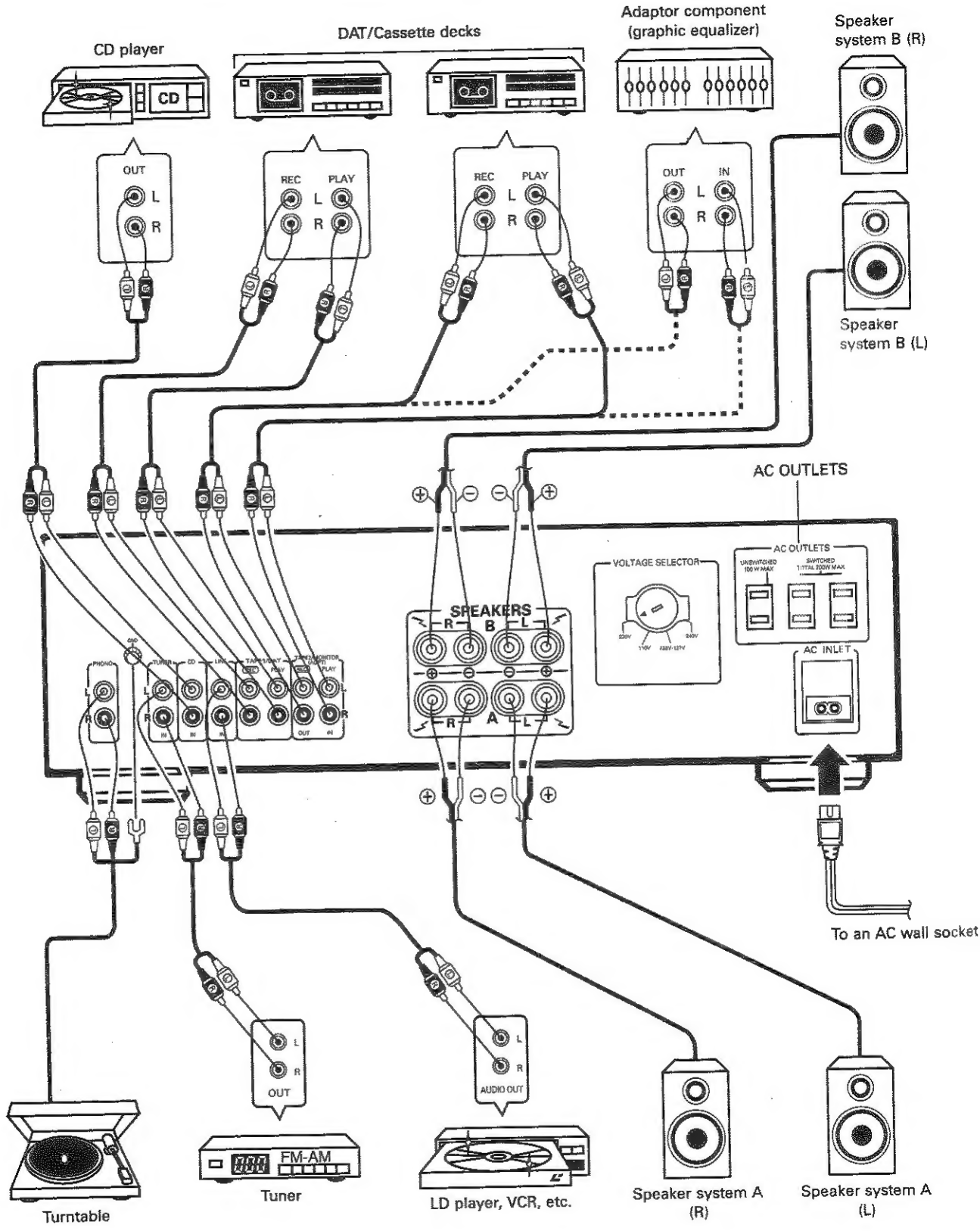
**㉕ SPEAKERS A terminals (Right channel)**

**㉖ SPEAKERS A terminals (Left channel)**

**㉗ AC INLET jack**

Connect one end of the power cord to here and the other end to an AC wall socket, or the AC outlet of an audio timer.
If the unit is not going to be in use for a long period of time, disconnect the unit from the wall socket.

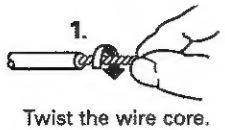
# CONNECTIONS



See page 6 for Connections.
Make all the connections before plugging in AC cords.

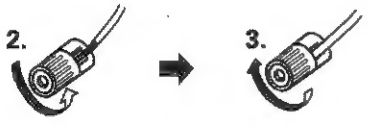
## CONNECTING THE SPEAKER CORDS

**1. Strip off the vinyl covering and twist the tip of the wire core.**




Twist the wire core.

**2. Loosen the knob and insert the wire core into the terminal hole.**
**3. Tighten the knob to fix the wire core in place.**



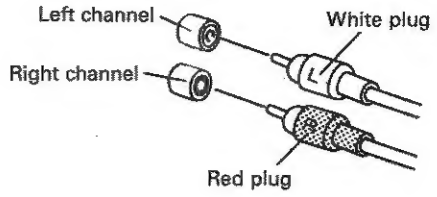

***NOTE:***
*Do not allow the wire core to protrude and touch other terminals or wires. If the cores of different wires touch, damage may result to your amplifier and/or speaker systems.*

### Speaker Impedance

When speaker systems are connected to only SPEAKERS A or SPEAKERS B terminals, such speakers should have rated impedance in the range of 4 Ω to 16 Ω.
When speakers are connected to both the A and B terminals, they should have a rated impedance in the range of 8 Ω to 16 Ω.

## CONNECTING THE INPUT/OUTPUT CORDS

Connect the white plug to the L (left) channel, and the red plug to the R (right) channel. Be sure to insert the plugs securely.




The INPUT/OUTPUT terminals of this unit are dull tinplated, for high audio quality.
Turn off the power before connecting or disconnecting plugs.

### AC OUTLETS (SWITCHED)

Power supplied through these outlets is turned on and off by the amplifier's POWER switch. Total electrical power consumption of connected equipment should not exceed 200 W.

### AC OUTLET (UNSWITCHED)

Power flows continuously to this outlet, regardless of whether the amplifier is switched on or off. Electrical power consumption of the connected equipment should not exceed 100 W.
The equipment should be disconnected by removing the power plug from the wall socket when not in regular use, e.g., when on vacation.

***NOTE:***
*Do not connect appliances with high power consumption such as heaters, irons, or television sets to the AC OUTLETS in order to avoid overheating or fire risk.*

## CONNECTIONS

The illustration shows model A-403.

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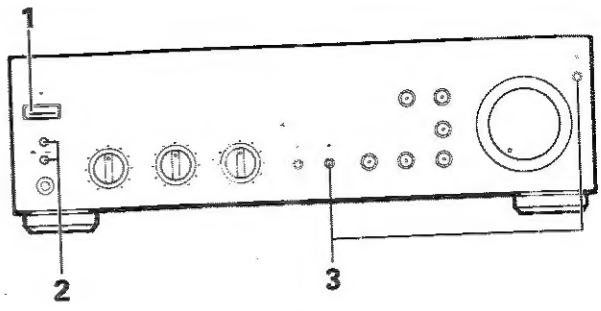


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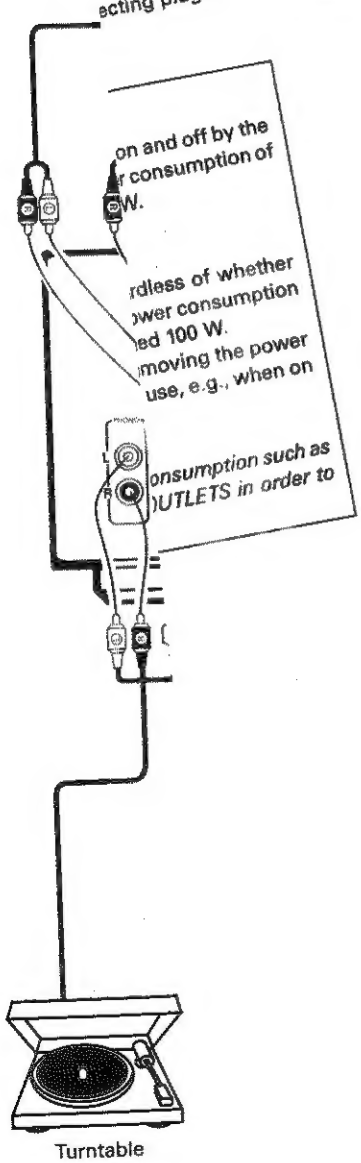

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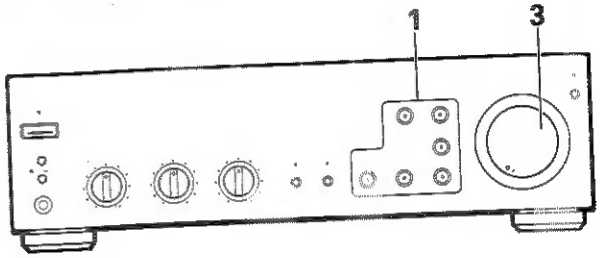


### connected to the TAPE 1/DAT REC terminals)

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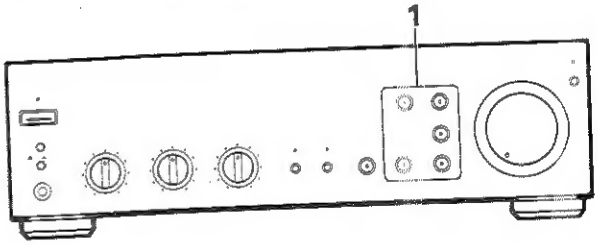



### MONITOR (ADPT) terminals)

## COPYING TAPES

When two decks are used, you can record the sounds from one deck onto the other.

### Application examples:

- To make a tape copy with contents identical to the original tape.
- To edit a recording of an FM broadcast in order to cut out unwanted commercials, recording only of desired material onto another tape.

### When using two cassette decks

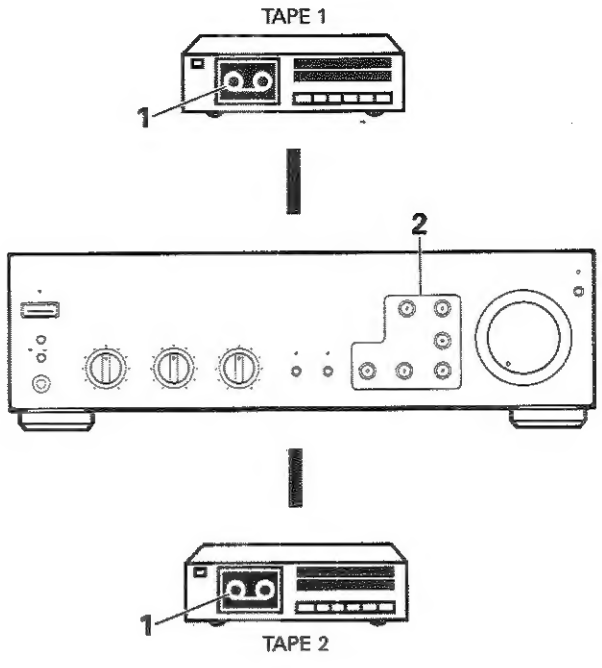
**1. Load tapes for playback (pre-recorded tape) and recording (blank tape) into the respective cassette decks.**

**2. Select the copying direction with input selector buttons and TAPE 2 MONITOR button.**

- When copying from the cassette deck of TAPE 1/DAT terminals to the cassette deck of the TAPE 2/MONITOR (ADPT) terminals: Set the Input selector button to TAPE 1/DAT and TAPE 2 MONITOR button to OFF.
- When copying from the cassette deck of the TAPE 2/MONITOR (ADPT) terminals to the cassette deck of TAPE 1/DAT terminals: Set the TAPE 2 MONITOR button to ON and the Input selector to a position other then TAPE 1/DAT.

**3. Operate the cassette decks to begin copying.**

Set the cassette deck with the pre-recorded tape to the playback mode. Set the cassette deck with the blank tape to the recording mode.




## TO USE THE COMPONENT CONNECTED TO THE TAPE 2 MONITOR (ADPT) TERMINALS

### [For an adaptor component]

By connecting a graphic equalizer, source sounds (from records, tapes, AM/FM broadcasts, etc.) can be heard with added sound and tone compensation.
Sounds compensated via the adaptor component can be recorded (TAPE 1 REC terminals).

**1. Set the TAPE 2 MONITOR button to ON.**

**2. Play back the source.**

**3. Operate the adaptor component.**

### [For a cassette deck]

A cassette deck connected here can be operated in the same way (recording and playback) as a deck connected to the TAPE 2/ MONITOR (ADPT) terminals.
Also, if two decks are used, you can copy tapes from one deck onto the other (see the section "COPYING TAPES")

**1. Set the TAPE 2 MONITOR button to ON.**

**2. Operate the cassette deck to perform playback (or recording).**

***NOTE:***

- *The source selected with the Input Selector is backed up for a few days even when the Power switch is set to off or the power cord is unplugged.*
  *After this period, the CD is automatically selected when the power is supplied.*
- *Be sure to perform this operation with the adaptor component power switch in the on position. Even when not using the adaptor component, its power switch must be left on. If the adaptor component is switched off, no sound will be produced, or the playback sound will be distorted.*

# TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

| Symptom | Cause | Remedy |
|---|---|---|
| **No power supplied to unit.** | • Power plug is disconnected from outlet.<br>• The component power plug has been plugged into another component power outlet (e.g. timer, etc.) but power to that unit is disconnected. | • Insert plug securely into outlet.<br>• Turn on power to the other component. |
| **No sound.** | • Connecting cords are disconnected from terminals, or connected incorrectly.<br>• Terminals, or connecting cords pin plugs are dirty.<br>• Input selector button is not set to the desired input source.<br>• Operation of other components is incorrect.<br>• Both SPEAKERS selector buttons are set to "OFF" (■).<br>• MUTING button is in the on position (the indicator is lit). (A-403 only) | • Connect correctly.<br>• Clean terminals and plugs.<br>• Set the input selector button correctly (PHONO, TUNER, CD, LINE, TAPE 1/DAT, TAPE 2 MONITOR).<br>• Consult the operating instructions for the other components.<br>• Set one button or both buttons to ON (▬).<br>• Set MUTING button to the off position (the indicator goes off). |
| **No sound from one speaker.** | • Connecting cords or speaker cords are disconnected on that side.<br>• BALANCE control has been adjusted to one side. | • Connect securely.<br>• Adjust BALANCE control to center position. |
| **Cannot record tapes.** | • Connections are incorrect.<br>• Operation of cassette deck is incorrect. | • Reconnect properly.<br>• Consult the operating instructions of the cassette deck. |
| **Cannot perform tape copying.** | • Operation of cassette decks is incorrect. | • Consult the operating instructions of the cassette decks. |

# SPECIFICATIONS

## [A-403]

### Amplifier Section

**Continuously Average Power Output is 60 Watts per channel, min., at 8 ohms from 20 Hertz to 20,000 Hertz, with no more than 0.05 %** total harmonic distortion.**

Continuous power output (both channels driven at 20 Hz to 20 kHz)**
T.H.D. 0.05 %, 8 Ω ..... 60 W + 60 W*
T.H.D. 0.1 %, 4 Ω ..... 80 W + 80 W*
Dynamic power output (on EIA dynamic test signal)
4 Ω/2 Ω ..... 110 W/130 W
Total harmonic distortion**
20 Hz to 20 kHz, 30 W, 8 Ω ..... 0.03 %*
Input sensitivity/impedance
PHONO (MM) ..... 2.8 mV/50 kΩ
CD, TUNER, LINE, TAPE ..... 200 mV/50 kΩ
Output level/impedance
TAPE REC, ADAPTOR OUTPUT ..... 200 mV/1 kΩ
Frequency response
PHONO (MM) ..... 20 Hz to 20 kHz ±0.5 dB
CD, TUNER, LINE, TAPE ..... 5 Hz to 100 kHz $^{+0}_{-3}$ dB*
Tone control
BASS ..... ±8 dB (100 Hz)
TREBLE ..... ±8 dB (10 kHz)
Muting ..... −20 dB
Loudness contour (volume control set at −30 dB position)
..... +5 dB (100 Hz)/+3 dB (10 kHz)
Signal-to-Noise ratio (IHF short circuit, A network)
PHONO (MM, 5 mV input) ..... 85 dB*
CD, TUNER, LINE, TAPE ..... 107 dB*

### Power Supply/Miscellaneous

Power Requirements ..... AC 110 V/120—127 V/220 V/240 V (Switchable), 50/60 Hz
Power Consumption ..... 560 W
AC outlets
Switched (x 2) ..... 200 W
Unswitched (x 1) ..... 100 W
Dimensions ..... 420 (W) x 360 (D) x 125 (H) mm
Weight (without package) ..... 7.5 kg

### Accessories

Operating instructions ..... 1

***NOTE:***
*Specifications and design are subject to possible modifications without notice, due to improvements.*

*Measured with DIRECT button set to on.
**Measured by Audio Spectrum Analyzer.

## [A-303]

### Amplifier Section

**Continuously Average Power Output is 40 Watts per channel, min., at 8 ohms from 20 Hertz to 20,000 Hertz, with no more than 0.05 %** total harmonic distortion.**

Continuous power output (both channels driven at 20 Hz to 20 kHz)**
T.H.D. 0.05 %, 8 Ω ..... 40 W + 40 W*
T.H.D. 0.1 %, 4 Ω ..... 50 W + 50 W*
Dynamic power output (on EIA dynamic test signal)
4 Ω/2 Ω ..... 90 W/100 W
Total harmonic distortion**
20 Hz to 20 kHz, 20 W, 8 Ω ..... 0.05 %*
Input sensitivity/impedance
PHONO (MM) ..... 2.8 mV/50 kΩ
CD, TUNER, LINE, TAPE ..... 200 mV/50 kΩ
Output level/impedance
TAPE REC, ADAPTOR OUTPUT ..... 200 mV/1 kΩ
Frequency response
PHONO (MM) ..... 20 Hz to 20 kHz ±0.5 dB
CD, TUNER, LINE, TAPE ..... 5 Hz to 100 kHz $^{+0}_{-3}$ dB*
Tone control
BASS ..... ±8 dB (100 Hz)
TREBLE ..... ±8 dB (10 kHz)
Loudness contour (volume control set at −30 dB position)
..... +5 dB (100 Hz)/+3 dB (10 kHz)
Signal-to-Noise ratio (IHF short circuit, A network)
PHONO (MM, 5 mV input) ..... 84 dB*
CD, TUNER, LINE, TAPE ..... 106 dB*

### Power Supply/Miscellaneous

Power Requirements ..... AC 110 V/120—127 V/220 V/240 V (Switchable), 50/60 Hz
Power Consumption ..... 450 W
AC outlets
Switched (x 2) ..... 200 W
Unswitched (x 1) ..... 100 W
Dimensions ..... 420 (W) x 360 (D) x 125 (H) mm
Weight (without package) ..... 6.5 kg

### Accessories

Operating instructions ..... 1

***NOTE:***
*Specifications and design are subject to possible modifications without notice, due to improvements.*

*Measured with DIRECT button set to on.
**Measured by Audio Spectrum Analyzer.

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